Table A-37. Number of full-time equivalent (FTE) R&D scientists and engineers in companies that performed industrial R&D in the U.S., by industry and size of company, by source of R&D funds: January 2002

Industry and size of company	NAICS codes	Total	Federal	Company
		[In thousands]		
Distribution by industry:				
All industries	21-23, 31-33, 42, 44-81	1,060.2	69.1 (S)	991.1
Manufacturing	31-33	615.8	39.8 (S)	576.0 (S)
Food	311	12.2	(D)	(D)
Beverage and tobacco products	312	0.9	0.0	0.9 (S)
Textiles, apparel, and leather	313-16	2.5	0.0	2.5
Wood products	321	2.0 (S)	0.0	2.0 (S)
Paper, printing and support activities	322, 323	11.1	(D)	(D)
Petroleum and coal products	324	2.8 (S)	(D)	(D)
Chemicals	325	81.5	0.8 (S)	80.7 (S)
Basic chemicals	3251	9.3	0.2 (S)	9.1
Resin, synthetic rubber, fibers, and filament	3252	11.1	(D)	(D)
Pharmaceuticals and medicines	3254	39.6	0.0	39.6
Other chemicals	325 minus (3251-52, 3254)	21.5 (S)	(D)	(D)
Plastics and rubber products	326	11.5	0.0	11.5 (S)
Nonmetallic mineral products	327	6.9	0.0	6.9 (S)
Primary metals	331	4.7	0.0 (S)	4.7
Fabricated metal products	332	10.1	(D)	(D)
Machinery	333	55.9	(D)	(D)
Computer and electronic products	334	256.7 (S)	27.0 (S)	229.7 (S)
Computers and peripheral equipment	3341	15.6	(D)	(D)
Communications equipment	3342	90.6 (S)	1.6 (S)	89.0 (S)
Semiconductor and other electronic components	3344	83.3	(D)	(D)
Navigational, measuring, electromedical, and control instruments	3345	63.5 (S)	24.7 (S)	0.0 38.8 (S)
Other computer and electronic products	334 minus (3341-42, 3344-45)	3.7	(D)	(D)
Electrical equipment, appliances, and components	335	33.6	1.8 (S)	31.8 (S)
Transportation equipment	336	99.5	9.4	90.1
Motor vehicles, trailers, and parts	3361-63	73.5	(D)	(D)
Aerospace products and parts	3364	19.1	7.7 (S)	11.4
Other transportation equipment	336 minus (3361-64)	6.9 (S)	(D)	(D)
Furniture and related products	337	2.2	0.0	2.2 (S)
Miscellaneous manufacturing	339	21.9	0.1	21.8
Medical equipment and supplies	3391	15.7	(D)	(D)
Other miscellaneous manufacturing	339 minus (3391)	6.2	(D)	(D)
Other manufacturing	31-33 minus (311-16, 321-27, 331-37, 339)	--	--	--

See explanatory information and SOURCE at end of table.

Table A-37. Number of full-time equivalent (FTE) R&D scientists and engineers in companies that performed industrial R&D in the U.S., by industry and size of company, by source of R&D funds: January 2002

Industry and size of company	NAICS codes	Total	Federal		Company
		[In thousands]			
Distribution by industry:					
Nonmanufacturing	21-23, 42, 44-81	444.4	29.3		415.1
Mining, extraction, and support activities	21	4.9	(D)		(D)
Utilities	22	0.6	(D)		(D)
Construction	23	2.1	0.0		2.1
Trade	42, 44, 45	114.3	0.2		114.1
Transportation and warehousing	48, 49	0.7	(D)		(D)
Information	51	119.4	(D)		(D)
Publishing	511	86.7	0.3	(S)	86.4
Newspaper, periodical, book, and database	5111	5.5	0.0		5.5
Software	5112	81.1	0.3	(S)	80.8
Broadcasting and telecommunications	513	13.5	(D)		(D)
Radio and television broadcasting	5131	(D)	0.0		(D)
Telecommunications	5133	11.7	(D)		(D)
Other broadcasting and telecommunications	513 minus (5131, 5133)	(D)	0.0		(D)
Other information	51 minus (511, 513)	19.2	(D)		(D)
Finance, insurance, and real estate	52, 53	19.9	0.0		19.9
Professional, scientific, and technical services	54	152.9	17.7	(S)	135.2
Architectural, engineering, and related services	5413	23.7	4.8		18.9
Computer systems design and related services	5415	62.8	(D)		(D)
Scientific R&D services	5417	59.9	12.0	(S)	47.9
Other professional, scientific, and technical services	54 minus (5413, 5415, 5417)	6.5	(D)		(D)
Management of companies and enterprises	55	1.5	0.0		1.5
Health care services	621-23	8.1	(D)		(D)
Other nonmanufacturing	56, 61, 624, 71, 72, 81	20.0	(D)		(D)

See explanatory information and SOURCE at end of table.

Table A-37. Number of full-time equivalent (FTE) R&D scientists and engineers in companies that performed industrial R&D in the U.S., by industry and size of company, by source of R&D funds: January 2002

Industry and size of company		Total	Federal	Company
		[In thousands]		
Distribution by size of company: [Number of employees]				
Total		1,060.2	69.1 (S)	991.1
5 to 24		34.4	0.0	34.4
25 to 49		26.7	0.1	26.6
50 to 99		40.4	0.9	39.5
100 to 249		79.9	2.0	77.9
250 to 499		47.6	4.0	43.6
500 to 999		61.9	3.3	58.6
1,000 to 4,999		159.1	1.4	157.7
5,000 to 9,999		110.6 (S)	15.3 (S)	95.3 (S)
10,000 to 24,999		144.3	5.0 (S)	139.3
25,000 or more		355.2	37.2 (S)	318.0

KEY: (D) = Data have been withheld to avoid disclosing operations of individual companies.
(S) = Indicates imputation of more than 50 percent.
(--) = Indicates data not collected.

NOTE: The company R&D in this table is the industrial R&D performed within company facilities funded from all sources except the Federal Government. The funds predominantly are the company's own, but also include funds from outside organizations such as other companies, research institutions, universities and colleges, nonprofit organizations, and State governments. Excluded from this table are company-funded R&D not performed within the company (e.g., R&D contracted out to other organizations) and company-funded R&D not performed within the 50 U.S. states or D.C. (e.g., R&D not performed on U.S. soil by foreign subsidiaries or other foreign organizations).

Starting in 1999, the frame from which the statistical samples were selected was divided into two partitions based on total company employment. In the manufacturing sector, companies with employment of 50 or more were included in the large company partition. In the nonmanufacturing sector, companies with employment of 15 or more were included in the large company partition. Companies in the respective sectors with employment below these values, but with at least 5 employees, were included in the small company partition. The purpose of partitioning the sample this way was to reduce the variability in industry estimates largely attributed to the random year-to-year selection of small companies by industry and the high sampling weights that sometimes were assigned to them. Because of this, in prior reports detailed industry statistics were published only from the large company partition; detailed industry statistics from the small company partition were not. Statistics from the small company partition were included in the manufacturing, nonmanufacturing, and all industries totals, but were aggregated into "small manufacturing" and "small nonmanufacturing" classifications instead of being included in their respective industry classifications. For this report, this practice was evaluated and discontinued because it was determined that the data for small companies are more useful if they are included in their respective industries even given the sampling concerns described above. Consequently, the "small manufacturing" and "small nonmanufacturing" stublines are no longer present. Statistics for the firms in the small company classifications are not shown separately in this table, but are included in the manufacturing, nonmanufacturing, and all industries totals. For more information, see technical notes in Survey of Industrial Research and Development Methodology: 2001 at http://www.nsf.gov/sbe/srs/sird/start.htm.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Industrial Research and Development: 2001